Fresno-Bakersfield Supplemental AA Report Executive Summary

This September 2010 Fresno to Bakersfield Supplemental Alternatives Analysis (AA) Report updates the Preliminary AA Report that the California High-Speed Rail Authority (Authority) issued for the Fresno to Bakersfield high-speed train (HST) section in June 2010. It presents documentation and analysis of potential new alignment options through Kings County.

In response to concerns for the impacts to agricultural land and operations resulting from the alignment recommended in the Preliminary AA Report, two alignment alternatives that would pass through the City of Hanford were investigated. The intent of this investigation was to determine if through-Hanford alignments would provide reasonable tradeoffs compared with the previously-recommended alignment, which passes through agricultural land east of Hanford. The two through-Hanford alignments under consideration differed only in terms of where a potential station to serve the area might be located. Under one option, the station would be located in Downtown Hanford and under the other it would be located in the southern part of the city, approximately a mile south of State Route 198.

Kings County Design Options

In response to concerns over the potential impacts to agricultural lands and operations of the recommended alignment through Kings County (Alternative C1), the Authority identified two alignment options (H1 and H2) that would essentially follow the BNSF corridor through Hanford, rather than bypassing the city to the east (see Figure 1-1). The two options, which differ principally in terms of the location of a potential station in Hanford (see Figure 1-2), would both remain essentially parallel to the BNSF right-of-way through southern Fresno County (including the community of Laton) and into Kings County before entering Hanford. The alignments would diverge from the BNSF alignment from the Kings River to approximately Excelsior Avenue in Kings County as the BNSF alignment geometry cannot accommodate high-speed train geometry. South of Hanford, the alignments would stay along the BNSF alignment before reaching Corcoran, at which point they would join the alignment alternatives carried forward for that area (i.e., through-town or bypass). Again, the alignments would diverge from the BNSF alignment north of Kansas Avenue because of track geometry. To avoid excessive community disruption and provide sufficient clearance above the Cross-Valley Railroad tracks, BNSF spur tracks, and SR-198, both options would be on elevated structures through Hanford and for considerable distances to the north and south. Following are descriptions of the key features of the alignment options, focusing on their distinctions.

Option H1: Hanford Through-Town/Downtown Station – Under Option H1, the alignment is designed to accommodate a station in Downtown Hanford. To accomplish this while conforming to the project engineering design standards for station tracks and platforms, the alignment would depart from the BNSF corridor approximately ¼ mile south of Grangeville Road. The alignment would then rejoin the BNSF corridor near Hanford-Armona Road, approximately ½ mile south of SR-198. This departure from the BNSF corridor would allow for the 6,000 feet of straight track required for the station. Under Option H1, the station platform would be located just north of the intersection of Lacey Boulevard and 11th Avenue, in an area currently occupied by a shopping center. Because of its urban location, the station parking under this option would most likely be accommodated in a multi-level structure.

Option H2: Hanford Through-Town/Southern Station – Under Option H2, the alignment would generally follow the BNSF corridor all of the way through Hanford. High-speed track geometry would again require a wider curve than BNSF, from approximately Elm Street to 3rd Street. Under this option, the station would be located approximately halfway between Hanford-Armona Road and Houston Avenue, at the southern edge of Hanford. Because of the project design standards for station tracks and platforms, this is only area in Hanford that could accommodate a station under this alignment. Because of its suburban location, the station parking under this option would be most likely be accommodated in a surface lot.

Figure 0-1. Kings County Alignment Options

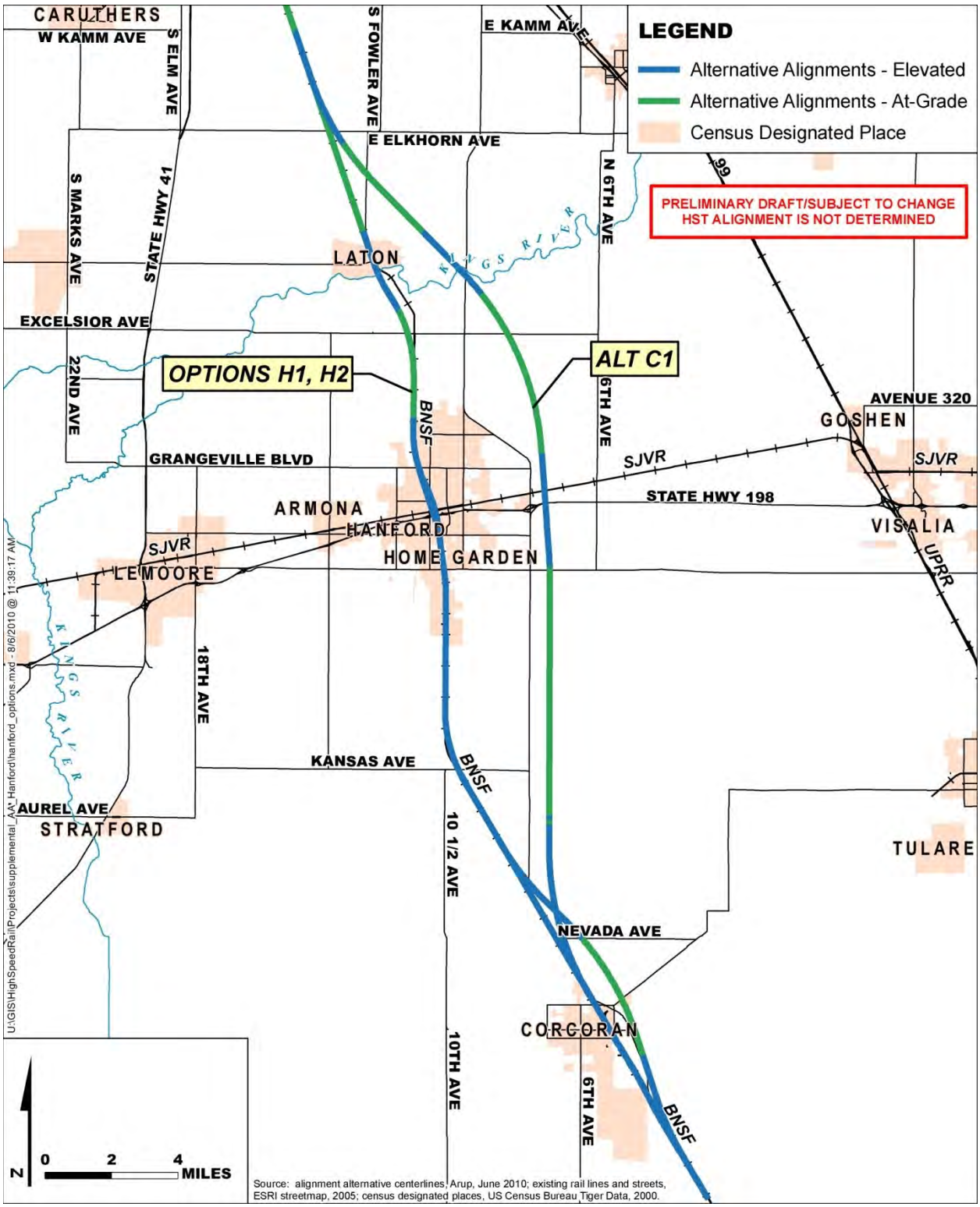
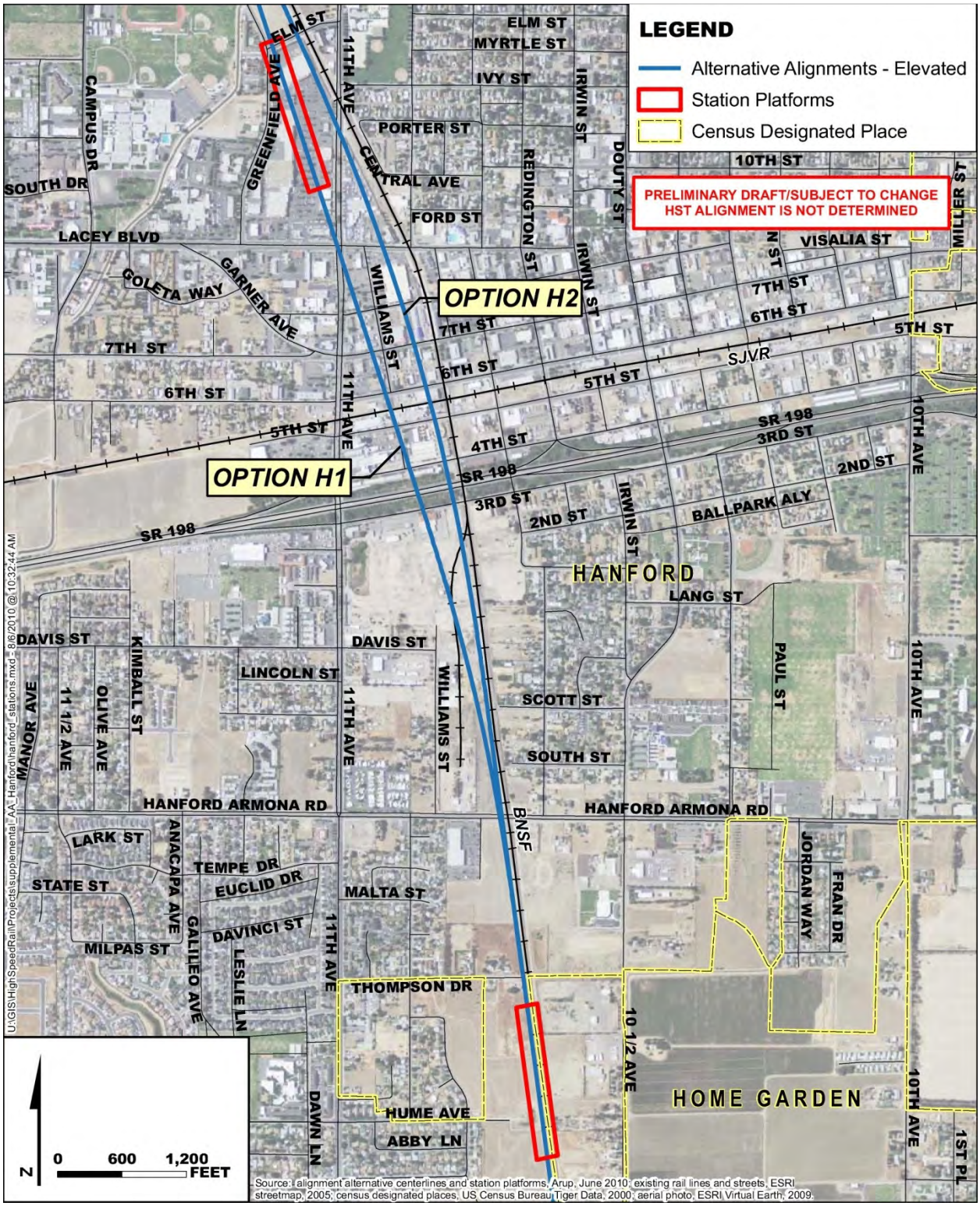


Figure 0-2. Through-Hanford Alignment Options and Potential Station Locations



Evaluation of Kings County Design Options

- **Property Displacement:** Under Alternative C1, the vast majority of property displacement is on agricultural land, with approximately 185 parcels and 630 acres affected by the HST alignment. Alternative C1 affects very little urban or suburban land (i.e., residential, commercial, industrial, public). Options H1 and H2 would affect 46 fewer agricultural parcels totaling approximately 345 acres. Options H1 and H2 affect between 105 (H2) and 120 (H1) more parcels, or about 28 more acres of land under both options.
- **Local Traffic Impacts:** Local traffic effects would be greatest under Option H1 because the Downtown Hanford station location would introduce new trips to an area that already experiences some congestion. The Option H2 station location is currently undeveloped, so there would be more opportunity to plan and design access routes. However, there would be a higher likelihood of cut-through traffic in nearby residential neighborhoods under Option H2, particularly to the west of the HST guideway.
- **Travel Time and Route Length:** Similar between Alternative C1 and Options H1 and H2.
- **Intermodal Connections:** Alternative C1 would have more direct access to local highways (SR-43 and SR-198) than Options H1 and H2. It would also provide more direct connection with potential east-west passenger service on the Cross-Valley Railroad line. Option H1 would provide an opportunity for connection with Downtown Hanford Amtrak station. Option H2 would have the least convenient multi-modal access.
- **Cost:** Options H1 and H2 would be more expensive for all cost categories than Alternative C1, largely because of elevated structures and route through already-developed areas.
- **TOD Opportunities:** Option H1 would place a station in Downtown Hanford, which could benefit from reinvestment and intensification consistent with TOD principles. Option H2 would place the station in a largely undeveloped area designated for a combination of industrial, commercial, public facility, and open space uses. The Options H2 station could prompt adjacent development consistent with TOD principles. Under Alternative C1, TOD would be inconsistent with current planning assumptions.
- **Constructability:** Alternative C1 would be less complicated to construct than Options H1 and H2 because it would pass through more accessible areas.
- **Railroad Disruption:** Disruption to existing railroads would be similar between Alternative C1 and Options H1 and H2.
- **Utility Disruption:** Alternative C1 would be more disruptive to existing utilities than Options H1 and H2, as it would cross 11 more electric lines and 6 more natural gas lines.
- **Natural Resources:** Options H1 and H2 would align with already-developed rail corridor, so they would have fewer natural resource impacts than Alternative C1, particularly for wetland habitat areas.
- **Agricultural Impacts:** Options H1 and H2 would affect approximately 350 acres less agricultural land than Alternative C1, about 160 acres of which would be prime.
- **Noise, Vibration, and Visual Impacts:** Options H1 and H2 would subject between 1,250 and 1,300 more sensitive receptors to noise and vibration than Alternative C1. H1 and H2 would have between 2,130 and 2,210 more residential properties subject to visual impacts than C1.
- **Geotechnical Constraints:** Options H1 and H2 would be subject to far fewer geotechnical constraints than Alternative C1. Options H1 and H2 would be exposed to more hazardous material sites.
- **Community Acceptance:** Both Kings County and the City of Hanford and Farm Bureau oppose Options H1 and H2 and C1.

Recommendations

The staff recommends Board approval of the following:

Kings County Design Options

- ✓ Continue to carry forward Alternative C1 from Preliminary AA Report with revisions to minimize agricultural impacts
- × Do not carry forward Options H1 and H2